



02-05-03

3632
#11
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T.M.L.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named

Inventor : Kenneth J. Kirchhoff

Appln. No. : 09/665,821

Filed : September 20, 2000

Title : ADJUSTABLE KEYBOARD TRAY

Docket No. : 55824US002 (M534.12-0007)

Group Art Unit: 3632

Examiner: G. Baxter

RESPONSE

RECEIVED

FEB 11 2003

Box Non-Fee Amendment
Assistant Commissioner for Patents
Washington, D.C. 20231

SENT VIA EXPRESS MAIL

GROUP 3600

Express Mail No.: EV 168042845 US

Sir:

This is in response to the Office Action mailed on November 8, 2002, in which claims 2, 3, 6-10, 12-14 and 17 were rejected, claims 4, 5, 15 and 16 were objected to, and claims 19-27 were allowed. Claims 2-10, 12-17 and 19-27 are pending in this application.

Claims 2, 6, 12-14 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Smeenge et al. (U.S. Patent No. 4,616,798) in view of Martin (U.S. Patent No. 5,732,910) and in further view of Meier et al. (U.S. Patent No. 5,830,552). The Applicant notes that the Examiner appears to have inadvertently omitted the name of the third reference from the second page of the Office Action. However, since the third page of the Office Action references the Meier et al. patent, the Applicant has assumed this to be the third reference. Claims 3, 6 and 7-10 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Bateson (U.S. Patent No. 6,123,304) in view of Martin (U.S. Patent No. 5,732,910) and in further view of Meier et al. (U.S. Patent No. 5,830,552).

A. Claims 2, 6, 12-14 and 17

Independent claim 2 recites an adjustable keyboard tray for use with a center mount bracketing mechanism that is secured to and translates in and out from a horizontal surface. The tray includes a top plate made of polymeric material and a bottom plate made of polymeric material that

is secured to the top plate by ultrasonic welding. A mounting plate secures the tray to the bracketing mechanism, the mounting plate being secured to the bottom plate of the tray in a recessed mounting area to maintain a substantially smooth outer surface along the bottom plate.

The Examiner rejected claim 2 by combining the teachings of Smeenge et al., Martin and Meier et al. Smeenge et al. discloses a keyboard tray that is center-mounted, which includes a plastic material molded around a central core (45) to define an upper planar surface (46). Smeenge et al. also discloses a support plate (50) fixedly molded in the underside of the tray. See FIG. 2. The Examiner noted that Smeenge et al. fail to disclose that the tray is formed from two separate elements, namely a top and bottom plate that is welded together.

The Examiner supplied part of this deficiency in Smeenge et al. by turning to the disclosure of Martin. Martin teaches a lap-supported keyboard support apparatus which includes a top member (21), a medial member (22) and a lower member (23). The top member (21) has a bottom channel (31), and the medial member has a top channel (32), which mate together to form a cavity (33) there between. A drawer (36) is receivable into the cavity (33). See FIG. 3. Neither Smeenge et al. nor Martin teach a two-piece construction that is attached by ultrasonic welding.

The Examiner supplied the final deficiency in Smeenge et al. in view of Martin by turning to the disclosure of Meier et al. The Examiner states that Meier teaches a planar structure having polymeric components that are welded together by ultrasonic or high frequency, etc. (See col. 6, lns. 14-20).

1. Requirements for Prima Facie Obviousness

Three basic requirements are necessary to establish a prima facie case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. Furthermore, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. See M.P.E.P. 2143.

2. All Claim Limitations Must be Taught or Suggested

In order to reject a claim under 35 U.S.C. § 103 as being obvious, all of the claim limitations must be taught or suggested by the prior art. See M.P.E.P. 2143.03, citing In re Royka, 180 U.S.P.Q. 580 (C.C.P.A. 1964). Thus, all of the features of claim 2 must be taught or suggested by Smeenge et al., Martin or Meier et al. in order to properly reject that claim. The Examiner's proposed combination of these references would substitute the keyboard tray of Martin for the keyboard tray of Smeenge et al., and would employ ultrasonic welding to attach components as taught by Meier et al. This combination would not disclose all of the recited elements of claim 2. Claim 2 recites a top plate and a bottom plate that is secured to the top plate by ultrasonic welding. Martin does not disclose any connection of a top plate and a bottom plate. The Examiner has identified the foam lower member (23) as corresponding to the claimed bottom plate. However, the lower member (23) is not a plate, and is not connected to the top member (21) at all. Claim 2 also recites a mounting plate that secures the tray to a bracketing mechanism, wherein the mounting plate is secured to the bottom plate of the tray in a recessed mounting area. There is no recessed mounting area in the Martin apparatus to secure a mounting plate, since the bottom surface of the foam lower member (23) is flat. Therefore, since the combination of Smeenge et al., Martin and Meier et al. does not disclose all of the recited elements of claim 2, the rejection of claim 2 under 35 U.S.C. § 103(a) should be withdrawn.

3. A Teaching or Suggestion to Combine Teachings is Required

In order to combine multiple prior art references as the basis of an obviousness rejection, there must be some suggestion or motivation, either in the references themselves or elsewhere in the art, to combine the teachings of the references. If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. M.P.E.P. 2143.01, citing In re Gordon, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

- (a) There is no teaching or suggestion to combine Smeenge et al. and Martin

The keyboard support apparatus of Martin is designed to be placed on the lap of a user. This means that there is no need for the light weight and stability (competing constraints) that is required for a support system that is secured to a work surface, which motivated the Applicants to invent the claimed apparatus. The lack of this motivation is apparent in the Martin apparatus, which employs a thick foam member (23) to provide cushioning as the apparatus is placed on the user's lap. This type of cushioning, as well as the bulky nature of the Martin apparatus, would be unsuitable for mounting on a support apparatus that is secured to a work surface, as recited in claim 2 and disclosed by Smeenge et al. Significant changes in configuration would have to be made to the Martin apparatus for it to be suitable for incorporation into such a work surface supported system. Such changes are not taught or suggested by Smeenge et al., Martin, Meier et al. or elsewhere in the art. One of ordinary skill in the art would have no motivation to look to a lap-supported portable computer holder (such as is taught by Martin) for ideas to modify a work surface supported keyboard holder (such as is taught by Smeenge et al.), since the design considerations for these types of apparatus are quite different. The Examiner has not identified a motivation to combine these teachings, either in the references themselves or elsewhere in the art. The combination of Smeenge et al. and Martin is therefore not a proper one, since there is no suggestion or motivation to do so, and the rejection of claim 2 under 35 U.S.C. § 103 on that basis should accordingly be withdrawn.

- (b) There is no teaching or suggestion to combine Smeenge et al., Martin and Meier et al.

There is also no teaching or suggestion in any of the cited references to employ the ultrasonic welding techniques of Meier et al. to secure a bottom plate of an adjustable keyboard tray as claimed to a top plate. Neither Smeenge et al. nor Martin discloses top and bottom plates that are attached in any manner. Meier et al. simply teaches a cover or table plate having a separable edge protection configuration that can be formed of injection molded plastic with legs that can be joined

by ultrasonic welding. This teaching certainly indicates that the process of ultrasonic welding itself is known, but does not provide any suggestion to one skilled in the art to modify prior, one-piece keyboard trays (such as Smeenge et al. and Martin) into a configuration as recited in claim 2, having top and bottom plates secured to one another by ultrasonic welding. The combination of Smeenge et al., Martin and Meier et al. is therefore not a proper one, since there is no suggestion or motivation to do so, and the rejection of claim 2 under 35 U.S.C. § 103 on that basis should accordingly be withdrawn.

4. Dependent and Other Independent Claims

Claim 6 depends from either claim 2 or claim 3. For the purpose of its dependency from claim 2, claim 6 is allowable with its parent claim 2. In addition, it is respectfully submitted that the combination of features recited in claim 6 is patentable on its own merits, although this does not need to be specifically addressed herein since any claim depending from a patentable independent claim is also patentable. See M.P.E.P. 2143.03, citing In re Fine, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

Independent claim 13 recites an adjustable keyboard tray for use with a bracketing mechanism that is secured to and translates in and out from a horizontal surface. The tray includes a top plate and a bottom plate secured to the top plate, along with other features. Independent claim 14 also recites a mounting plate that secures the tray to the bracketing mechanism, wherein the mounting plate is secured to the bottom plate of the adjustable keyboard tray in a recessed mounting area. As was discussed above with respect to claim 2, the combination of Smeenge et al., Martin, and Meier et al. is improper because of the lack of suggestion or motivation to do so. The rejection of claim 13 under 35 U.S.C. § 103(a) should accordingly be withdrawn.

Independent claim 14 recites an adjustable keyboard tray for use with a bracketing mechanism that is secured to and translates in and out from a horizontal surface. The tray includes a top plate and a bottom plate secured to the top plate, along with other features. Independent claim 14 also recites a mounting plate that secures the tray to the bracketing mechanism, wherein the mounting plate is secured to the tray by a retaining bracket. As was discussed above with respect

to claim 2, it is improper to combine Smeenge et al., Martin, and Meier et al. because of the lack of suggestion or motivation to do so. The rejection of claim 14 under 35 U.S.C. § 103(a) should accordingly be withdrawn.

Claim 12 depends from either claim 13 or claim 14, and is allowable with these parent claims. In addition, it is respectfully submitted that the combination of features recited in claim 12 is patentable on its own merits, although this does not need to be specifically addressed herein since any claim depending from a patentable independent claim is also patentable. See M.P.E.P. 2143.03, citing In re Fine, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

Claim 17 depends from claim 14, and is allowable therewith. In addition, it is respectfully submitted that the combination of features recited in claim 17 is patentable on its own merits, although this does not need to be specifically addressed herein since any claim depending from a patentable independent claim is also patentable. See M.P.E.P. 2143.03, citing In re Fine, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

B. Claims 3, 6 and 7-10

Independent claim 3 recites an adjustable keyboard tray for use with a center mount bracketing mechanism that is secured to and translates in and out from a horizontal surface. The tray includes a top tray and a bottom tray secured to the top tray by ultrasonic welding. A mounting plate secures the tray to the bracketing mechanism, wherein the mounting plate is secured to the tray by a retaining bracket.

The Examiner rejected claim 3 by combining the teachings of Bateson, Martin, and Meier. Bateson discloses a shelf (18) and keyboard supporting surface (20) which sits on a support shelf (12). The support shelf (12) slides toward and away from a work surface, and the keyboard shelf (18) is pivotally coupled to the support shelf (12), such as by a pivotal ball-bearing. See FIG. 1. The Examiner noted that Bateson does not disclose that the tray is formed of top and bottom plates. The Examiner supplied this deficiency in Bateson by turning to the disclosure of Martin, the disclosure of which has been discussed above with respect to claim 2.

1. All Claim Limitations Must be Taught or Suggested

In order to reject a claim under 35 U.S.C. § 103 as being obvious, all of the claim limitations must be taught or suggested by the prior art. See M.P.E.P. 2143.03, citing In re Royka, 180 U.S.P.Q. 580 (C.C.P.A. 1964). Thus, all of the features of claim 3 must be taught or suggested by Bateson, Martin or Meier et al. in order to properly reject that claim. The Examiner's proposed combination of these references would substitute the keyboard tray of Martin for the keyboard tray of Bateson. This combination would not disclose all of the recited elements of claim 3. Claim 3 recites a top plate and a bottom plate that is secured to the top plate by ultrasonic welding. Martin does not disclose the connection of a top plate and bottom plate by ultrasonic welding. The Examiner has identified the foam lower member (23) as corresponding to the claimed bottom plate. However, the lower member (23) is not a plate, and is not connected to the top member (21) at all (and thus is not connected by ultrasonic welding). Claim 3 also recites that the mounting plate secures the tray to the bracketing mechanism (which is secured to and translates in and out from the horizontal work surface). The mounting plate identified by the Examiner in Bateson is the support shelf (12), which does not secure the keyboard tray to a center mount bracketing mechanism as claimed, but instead is received into side rails (14). Therefore, since the combination of Bateson and Martin does not disclose all of the recited elements of claim 3, the rejection of claim 3 under 35 U.S.C. § 103(a) should be withdrawn.

2. A Teaching or Suggestion to Combine Teachings is Required

In order to combine multiple prior art references as the basis of an obviousness rejection, there must be some suggestion or motivation, either in the references themselves or elsewhere in the art, to combine the teachings of the references. See M.P.E.P. 2143. If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. M.P.E.P. 2143.01, citing In re Gordon, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

- (a) There is no teaching or suggestion to combine Bateson and Martin

The keyboard support apparatus of Martin is designed to be placed on the lap of a user. This means that there is no need for the light weight and stability (competing constraints) that motivated the Applicants to invent the claimed apparatus. The lack of this motivation is apparent in the Martin apparatus, which employs a thick foam member (23) to provide cushioning as the apparatus is placed on the user's lap. Significant changes would have to be made to the Martin apparatus for it to be suitable for center mounting and support from a horizontal work surface, as recited in claim 3. Such changes are not taught or suggested by Bateson, Martin, Meier et al., or elsewhere in the art. The Examiner has not identified a motivation to combine these teachings, either in the references themselves or elsewhere in the art. The combination of Bateson, Martin, and Meier et al. is therefore not a proper one, since there is no suggestion or motivation to do so, and the rejection of claim 3 under 35 U.S.C. § 103 on that basis should accordingly be withdrawn.

No motivation provided

- (b) There is no teaching or suggestion to combine Smeenge et al., Martin and Meier et al.

There is also no teaching or suggestion in any of the cited references to employ the ultrasonic welding techniques of Meier et al. to secure a bottom plate of an adjustable keyboard tray as claimed to a top plate. Neither Bateson nor Martin discloses top and bottom plates that are attached in any manner. Meier et al. simply teaches a cover or table plate having a separable edge protection configuration that can be formed of injection molded plastic with legs that can be joined by ultrasonic welding. This teaching certainly indicates that the process of ultrasonic welding itself is known, but does not provide any suggestion to one skilled in the art to modify prior, one-piece keyboard trays (such as Bateson and Martin) into a configuration as recited in claim 3, having top and bottom plates secured to one another by ultrasonic welding. The combination of Bateson, Martin and Meier et al. is therefore not a proper one, since there is no suggestion or motivation to do so, and the rejection of claim 3 under 35 U.S.C. § 103 on that basis should accordingly be withdrawn.

3. Dependent Claims

Claim 6 depends from either claim 2 or claim 3. For the purpose of its dependency from claim 3, claim 6 is allowable with its parent claim 3. In addition, it is respectfully submitted that the combination of features recited in claim 6 is patentable on its own merits, although this does not need to be specifically addressed herein since any claim depending from a patentable independent claim is also patentable. See M.P.E.P. 2143.03, citing In re Fine, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

Claims 7-10 depend from claim 6, and are allowable therewith. In addition, it is respectfully submitted that the combinations of features recited in claims 7-10 are patentable on their own merits, although this does not need to be specifically addressed herein since any claim depending from a patentable independent claim is also patentable. See M.P.E.P. 2143.03, citing In re Fine, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

Objections to Claims

Claims 4, 5, 15 and 16 were objected to as being dependent on rejected base claims, but were otherwise indicated to be allowable. In view of the foregoing, the base claims from which claims 4, 5, 15 and 16 depend are in condition for allowance, and claims 4, 5, 15 and 16 are allowable therewith.

Allowed Claims

The allowance of claims 19-27 is gratefully acknowledged.

CONCLUSION

In view of the foregoing, all pending claims 2-10, 12-17 and 19-27 are now in condition for allowance. A notice to that effect is respectfully requested.

First Named Inventor: Kenneth J. Kirchhoff

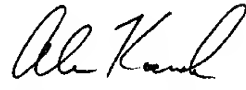
Application No.: 09/665,821

-10-

Respectfully submitted,

KINNEY & LANGE, P.A.

Date: 2/4/03

By 

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named

Inventor : Kenneth J. Kirchhoff

Appln. No. : 09/665,821

Filed : September 20, 2000

Title : ADJUSTABLE KEYBOARD TRAY

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Examiner: G. Baxter

EXPRESS MAIL COVER SHEET

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Assistant Commissioner for Patents
Washington, D.C. 20231

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GROUP 3600

Express Mail No.: EV 254755946 US

Sir:


The following papers are being transmitted via **EXPRESS MAIL** to the U.S. Patent and Trademark Office on the date shown below:

1. Response
2. Fee Transmittal (in duplicate)
3. postcard

Respectfully submitted,

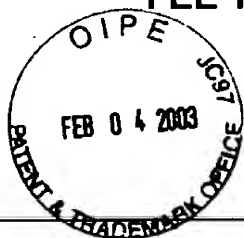
KINNEY & LANGE, P.A.

Date: 2/4/03

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FEE TRANSMITTAL



Total Amount of Payment \$0.00

METHOD OF PAYMENT (Check One)

1. ☒ The Commissioner is hereby authorized to charge any additional fee required under 37 C.F.R. 1.16 and 1.17 and credit any over payments to Deposit Account No.11-0982. Deposit Account Name: Kinney & Lange, P.A. A duplicate copy of this communication is enclosed

2. ☐ Check Enclosed

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Fee Description
1001	750	2001	375	<input type="checkbox"/> Utility Filing Fee
1006	330	2006	165	<input type="checkbox"/> Design Filing Fee
1004	750	2004	375	<input type="checkbox"/> Reissue Filing Fee
1005	160	2005	80	<input type="checkbox"/> Prov. Filing Fee

Subtotal (1) \$0.00

2. EXTRA CLAIM FEES

	Number Claims	Prior**	Extra	Fee from Below	Fee Paid
Total	24	-	-24	= 0 x 18	= 0
Indep.	6	-	6	= 0 x 84	= 0
Multiple Dependent Claims				* = *	

**Insert 3 and 20, or number previously paid if greater; Reissue see below

Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Description
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple Dependent Claim
1204	84	2204	42	Reissue Independent Claims Over Original Patent
1205	18	2205	9	Reissue claims in excess of 20 and over original patent

Subtotal (2) \$0.00

Complete if Known

Application No.	09/655,821
Filing Date	September 20, 2000
First Named Inventor	Kenneth J. Kirchhoff
Group Art Unit	3632
Examiner Name	G. Baxter
Atty. Docket Number	M534.12-0007

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GROUP 3600

FEE CALCULATION (Continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Fee Description	Fee paid
1051	130	2051	65	Surcharge - Late filing fee or oath	*
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	*
1053	130	1053	130	Non-English specification	*
1812	2,520	1812	2,520	For Filing a Request for Reexamination	*
1251	110	2251	55	Extension for reply within first month	*
1252	410	2252	205	Extension for reply within second month	*
1253	930	2253	465	Extension for reply within third month	*
1254	1,450	2254	725	Extension for reply within fourth month	*
1255	1,970	2255	985	Extension for reply within fifth month	*
1402	320	2402	160	Filing a brief in support of an appeal	*
1403	280	2403	140	Request for oral hearing	*
1814	110	2814	55	Terminal Disclaimer Fee	*
1452	110	2452	55	Petition to revive - unavoidable	*
1453	1,300	2453	650	Petition to revive - unintentional	*
1501	1,330	2501	680	Utility/Reissue issue fee (inc. advance copies)	*
1502	500	2502	265	Design issue fee (inc. advance copies)	*
1460	130	1460	130	Petitions to the Commissioner	*
1807	50	1807	50	Petitions related to provisional applications	*
1806	180	1806	180	Submission of Information Disclosure Statement	*
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	*
1801	750	2801	375	Request for Continued Examination (RCE)	*
Other fee (specify)					*

Subtotal (3) \$0.00

Signature

Alan M. Koenck

Reg. No. 43,724

Date

February 4, 2003

Deposit Account No. 11-0982